

Claims

1-11 Canceled

12. (New) A tire pressure-monitoring device for a motor vehicle comprising:

transponders (1) which are arranged in or at wheels or tires and communicate with respectively an associated wheel house transceiver (4) via a wireless unidirectional or bi-directional information and energy transmission;

at least one control unit (6) connected to the wheel house transceivers (4) arranged in the area of the wheel houses by way of wheel speed sensor and control conduits (5).
13. (New) A tire pressure-monitoring device according to claim 12, wherein the wheel house transceivers (4) are connected to wheel speed sensors (2).
14. (New) A tire pressure-monitoring device according to claim 12, wherein the control unit (6) uses the wheel speed sensor and control conduits (5) or the wheel speed sensor control conduits (11) to transmit data from and to the wheel house transceivers (4).
15. (New) A tire pressure-monitoring device according to claim 12, wherein the wheel house transceivers (4) respectively comprise at least one transmitting antenna (20, 21) with an electronic actuating unit for transmitting energy and/or data to the associated transponder (1), and one receiving antenna with amplifying circuit for receiving and amplifying the tire information sent by the associated transponder (1).
16. (New) A tire pressure-monitoring device according to claim 15, wherein at least one transmitting antenna (20, 21) of the wheel house transceiver (4) includes a H-bridge

AP10883

control for transmitting energy or data.

17. (New) A tire pressure-monitoring device according to claim 16, wherein the at least one transmitting antenna (20, 21) for the energy transmission to the transponder (1) comprises at least one coil (23).
18. (New) A tire pressure-monitoring device according to claim 16, wherein the transmitting antenna (20, 21) for the energy transmission to the transponder (1) comprises at least one coil (23) with a ferrite core or a ferromagnetic core, which leads the magnetic flux for better conduction to the transponder (1).
19. (New) A tire pressure-monitoring device according to claim 16, wherein the transmitting antenna (20, 21) for the energy transmission to the transponder (1), in addition to at least one coil (23) for the energy transmission to the transponder (1), comprises further coils to enhance the efficiency by directing the magnetic flux through the transponder (1).
20. (New) A tire pressure-monitoring device according to claim 12, wherein the control unit (6) interchanges data with other systems in the vehicle through a data line (17).
21. (New) A tire pressure-monitoring device according to claim 12, wherein the control unit (6) or the central box (10) includes at least one connecting conduit (18) and at least one additional actuating conduit (19) to actuate an additional transponder.
22. (New) A tire pressure-monitoring device according to claim 21, wherein the additional transponder is integrated into an ignition key or into a subassembly suitable to start the vehicle or to deactivate an immobilizer.